Section I:

AMENDMENT UNDER 37 CFR §1.121 to the CLAIMS

Claim 1 (currently amended):

A method of producing a sampled image comprising the steps of:

providing a plurality of sensor positions in a row arrangement non-uniformly distributed with varying distances between each adjacent pair of sensor positions determined according to a first ~~predetermined~~ predictable deterministic schema; and

selectively sampling an image by sequentially exposing image portions to said row arrangement according to a second predictable deterministic schema such that each sensor position is sampled in a non-uniformly varying spatial manner to obtain a first set of data samples representing non-uniformly spaced points in said image.

Claim 2 (original):

The method as set forth in Claim 1 wherein said first predetermined schema comprises a pseudo-random schema.

Claim 3 (original):

The method as set forth in Claim 1 wherein said first predetermined schema comprises a nonlinear polynomial schema.

Claim 4 (original):

The method as set forth in Claim 1 further comprising the step of assigning a reference identifier to said first predetermined schema.

Claim 5 (canceled).

Claim 6 (currently amended):

The method as set forth in Claim [[5]] 1 wherein said second predetermined schema comprises a pseudo-random schema.

Claim 7 (currently amended):

The method as set forth in Claim [[5]] 1 wherein said second predetermined schema comprises a nonlinear polynomial schema.

Claim 8 (currently amended):

The method as set forth in Claim [[5]] 1 further comprising the step of assigning a reference identifier to said first predetermined schema.

Claim 9 (currently amended):

The method as set forth in Claim 1 further comprising the step of interpolating a set of data samples representing uniformly spaced data samples from said first set of non-uniformly spaced data samples, wherein said uniformly spaced data samples represent said image and contain approximately the same number of data samples as said first set of non-uniformly spaced data samples.

Claim 10 (currently amended):

A computer readable medium encoded with software for producing a sampled image ~~using an sensor array having sensor positions in a row arrangement distributed with varying distances between each adjacent pair of sensor positions according to a first predetermined schema~~, said software causing a processor to perform the steps of:

sequentially exposing image portions ~~to said row arrangement~~ to a plurality of sensors positioned in a row arrangement non-uniformly distributed with varying distances between each adjacent pair of sensor positions determined according to a first predictable deterministic schema ; and

selectively sampling said ~~sensor positions~~ sensors according to a second predictable deterministic schema such that each sensor is sampled in a non-uniformly varying spatial manner to obtain a first set of data samples representing non-uniformly spaces points in said image.

Claim 11 (canceled).

Claim 12 (currently amended):

The computer readable medium as set forth in Claim [[11]] 10 wherein said predetermined schema comprises a pseudo-random schema.

Claim 13 (currently amended):

The computer readable medium as set forth in Claim [[11]] 10 wherein said predetermined schema comprises a nonlinear polynomial schema.

Claim 14 (original):

The computer readable medium as set forth in Claim 10 further comprising software for interpolating a set of data samples representing uniformly spaced data samples from said first set of non-uniformly spaced data samples, wherein said uniformly spaced data samples represent said image and contain approximately the same number of data samples as said first set of non-uniformly spaced data samples.

Claim 15 (currently amended):

A system for producing a sampled image comprising:

a plurality of sensors positioned in a row arrangement distributed with varying distances between each adjacent pair of sensor determined according to a first ~~predetermined~~ predictable deterministic schema; and

a means for selectively sampling an image by sequentially exposing image portions to said row arrangement according to a second predictable deterministic schema such that each sensor position is sampled in a non-uniformly varying spatial manner to obtain a first set of data samples representing non-uniformly spaces points in said image.

Claim 16 (original):

The system as set forth in Claim 15 wherein said first schema for sensor positioning is a pseudo-random schema.

Claim 17 (original):

The system as set forth in Claim 15 wherein said first schema for sensor positioning is a nonlinear polynomial schema.

Claim 18 (canceled).

Claim 19 (currently amended):

The system as set forth in Claim [[18]] 15 wherein said second predetermined schema comprises a pseudo-random schema.

Claim 20 (currently amended):

The system as set forth in Claim [[18]] 15 wherein said second predetermined schema comprises a nonlinear polynomial schema.

Claim 21 (original):

The system as set forth in Claim 15 further comprising a means for generating a uniformly-spaced data sample by interpolating said first set of data samples.